

In the claims:

Please cancel claims 3, 10 and 17, please add claims 22-33, and please amend claims 1, 8, 11, 14-16 and 18-21 as indicated below. A complete listing of claims follows.

1. A system, comprising:
 - a storage device configured to provide a storage space for data storage ~~store a plurality of files~~; and
 - a file system configured to map a plurality of files to said storage space for storage and to manage application accesses to said storage device, wherein said file system is configured to:
 - determine a signature of a first one of said plurality of files dependent upon at least a portion of said first file;
 - detect an operation to access content of [[a]] said first file stored on said storage device, wherein said operation is generated by an application distinct from said file system; and
 - subsequent in response to detecting said operation, store a record of said operation associated with said first file, wherein said record includes [[a]] said signature corresponding to said first file, information indicating a type of said operation, and information identifying said application.
2. (Original) The system as recited in claim 1, wherein said operation corresponds to a file read operation or a file write operation.
3. (Canceled)
4. (Original) The system as recited in claim 1, wherein said record is stored in a named stream corresponding to said first file, wherein said file system comprises a history stream, and wherein said file system is further configured to store an indication of

said operation in said history stream in response to storing said record in said named stream.

5. (Original) The system as recited in claim 1, wherein said record is stored in a database configured to store a plurality of entries, and wherein said database is further configured to respond to a query of said plurality of entries.

6. (Original) The system as recited in claim 1, wherein said record is stored in extensible markup language (XML) format.

7. (Original) The system as recited in claim 1, wherein subsequent to storing said record, said file system is further configured to associate said record with a second file in response to detecting a second operation to modify the identity of said first file, wherein said second operation corresponds to a file copy operation specifying said first file as a copy source and said second file as a copy destination.

8. (Currently amended) A method, comprising:

~~storing a plurality of files;~~

a file system mapping a plurality of files to a storage space for data storage provided by a storage device, wherein said file system is configured to manage application accesses to said storage device;

said file system determining a signature of a first one of said plurality of files dependent upon at least a portion of said first file;

said file system detecting an operation to access content of [[a]] said first stored file, wherein said operation is generated by an application distinct from said file system; and

subsequent in response to detecting said operation, said file system storing a record of said operation associated with said first stored file, wherein said record includes [[a]] said signature corresponding to said first stored file, information indicating a type of said operation, and information identifying said application.

9. (Original) The method as recited in claim 8, wherein said operation corresponds to a file read operation or a file write operation.

10. (Canceled)

11. (Currently amended) The method as recited in claim 8, wherein said record is stored in a named stream corresponding to said first stored file, and wherein the method further comprises said file system storing an indication of said operation in a history stream in response to storing said record in said named stream.

12. (Original) The method as recited in claim 8, wherein said record is stored in a database configured to store a plurality of entries, and wherein said database is further configured to respond to a query of said plurality of entries.

13. (Original) The method as recited in claim 8, wherein said record is stored in extensible markup language (XML) format.

14. (Currently amended) The method as recited in claim 8, further comprising said file system associating said record with a second stored file in response to detecting a second operation to modify the identity of said first stored file, wherein said second operation corresponds to a file copy operation specifying said first file as a copy source and said second file as a copy destination.

15. (Currently amended) A tangible, computer-accessible storage medium comprising program instructions, wherein the program instructions are computer-executable to implement:

~~store a plurality of files;~~

a file system mapping a plurality of files to a storage space for data storage provided by a storage device, wherein said file system is configured to manage application accesses to said storage device;

said file system determining a signature of a first one of said plurality of files dependent upon at least a portion of said first file;
said file system detecting an operation to access content of [[a]] first ~~stored~~ file,
wherein said operation is generated by an application distinct from said
file system; and
subsequent in response to detecting said operation, said file system storing ~~store~~ a
record of said operation associated with said first ~~stored~~ file, wherein said
record includes [[a]] said signature corresponding to said first stored file,
information indicating a type of said operation, and information
identifying said application.

16. (Currently amended) The computer-accessible storage medium as recited in claim 15, wherein said operation corresponds to a file read operation or a file write operation.

17. (Canceled)

18. (Currently amended) The computer-accessible storage medium as recited in claim 15, wherein said record is stored in a named stream corresponding to said first stored file, and wherein said program instructions are further computer-executable to implement said file system storing ~~store~~ an indication of said operation in a history stream in response to storing said record in said named stream.

19. (Currently amended) The computer-accessible storage medium as recited in claim 15, wherein said record is stored in a database configured to store a plurality of entries, and wherein said database is further configured to respond to a query of said plurality of entries.

20. (Currently amended) The computer-accessible storage medium as recited in claim 15, wherein said record is stored in extensible markup language (XML) format.

21. (Currently amended) The computer-accessible storage medium as recited in claim 15, wherein said program instructions are further computer-executable to implement said file system associating ~~associate~~ said record with a second stored file in response to detecting a second operation to modify the identity of said first stored file, wherein said second operation corresponds to a file copy operation specifying said first file as a copy source and said second file as a copy destination.

22. (New) The system as recited in claim 1, wherein said file system is further configured to:

- determine respective signatures of ones of said plurality of files, wherein each signature is determined dependent on at least a portion of a corresponding one of said files;

- detect respective operations to access content of said ones of said plurality of files stored on said storage device, wherein each of said operations is generated by a corresponding application distinct from said file system;

- in response to detecting each given one of said respective operations to access content of a given corresponding one of said plurality of files, store a corresponding record of said given respective operation in a named stream associated respectively with said given corresponding file within said file system, wherein said corresponding record includes said respective signature corresponding to said given corresponding file, information indicating a type of said given respective operation, and information identifying said application corresponding to said given respective operation; and

- subsequent to storing said corresponding record for said given respective operation in said named stream associated respectively with said given corresponding file, storing said corresponding record for said given respective operation in a database.

23. (New) The system as recited in claim 22, wherein said file system is further configured to:

submit a query to said database to identify a class including one or more of said plurality of files, wherein each member of said class has one or more corresponding records of detected operations to access content that satisfy constraints specified in said query; and
assign a storage policy to each member of said class, wherein said storage policy is determined dependent upon said class.

24. (New) The system as recited in claim 23, wherein said storage policy identifies a type of storage device for storing members of said class, wherein said type is determined dependent upon a characteristic of said class.

25. (New) The system as recited in claim 22, wherein said file system is further configured to:

in response to storing said corresponding record for said given respective operation, store an indication of said given respective operation in a history stream of said file system.

scan said history stream to determine whether any unscanned indications of said respective operations are stored therein; and

in response to determining that an unscanned indication of one or more particular ones of said respective operations is stored in said history stream, retrieve said corresponding records of said one or more particular respective operations, and store said corresponding records of said one or more particular respective operations in a database.

26. (New) The method as recited in claim 8, further comprising:

said file system determining respective signatures of ones of said plurality of files, wherein each signature is determined dependent on at least a portion of a corresponding one of said files;

said file system detecting respective operations to access content of said ones of said plurality of files stored on said storage device, wherein each of said

operations is generated by a corresponding application distinct from said file system;

in response to detecting each given one of said respective operations to access content of a given corresponding one of said plurality of files, said file system storing a corresponding record of said given respective operation in a named stream associated respectively with said given corresponding file within said file system, wherein said corresponding record includes said respective signature corresponding to said given corresponding file, information indicating a type of said given respective operation, and information identifying said application corresponding to said given respective operation; and

subsequent to storing said corresponding record for said given respective operation in said named stream associated respectively with said given corresponding file, said file system storing said corresponding record for said given respective operation in a database.

27. (New) The method as recited in claim 26, further comprising:
said file system submitting a query to said database to identify a class including one or more of said plurality of files, wherein each member of said class has one or more corresponding records of detected operations to access content that satisfy constraints specified in said query; and
said file system assigning a storage policy to each member of said class, wherein said storage policy is determined dependent upon said class.
28. (New) The method as recited in claim 27, wherein said storage policy identifies a type of storage device for storing members of said class, wherein said type is determined dependent upon a characteristic of said class.
29. (New) The method as recited in claim 26, further comprising:

in response to storing said corresponding record for said given respective operation, said file system storing an indication of said given respective operation in a history stream of said file system.

said file system scanning said history stream to determine whether any unscanned indications of said respective operations are stored therein; and

in response to determining that an unscanned indication of one or more particular ones of said respective operations is stored in said history stream, said file system retrieving said corresponding records of said one or more particular respective operations and storing said corresponding records of said one or more particular respective operations in a database.

30. (New) The computer-accessible storage medium as recited in claim 15, wherein the instructions are further executable to implement:

said file system determining respective signatures of ones of said plurality of files, wherein each signature is determined dependent on at least a portion of a corresponding one of said files;

said file system detecting respective operations to access content of said ones of said plurality of files stored on said storage device, wherein each of said operations is generated by a corresponding application distinct from said file system;

in response to detecting each given one of said respective operations to access content of a given corresponding one of said plurality of files, said file system storing a corresponding record of said given respective operation in a named stream associated respectively with said given corresponding file within said file system, wherein said corresponding record includes said respective signature corresponding to said given corresponding file, information indicating a type of said given respective operation, and information identifying said application corresponding to said given respective operation; and

subsequent to storing said corresponding record for said given respective operation in said named stream associated respectively with said given

corresponding file, said file system storing said corresponding record for said given respective operation in a database.

31. (New) The computer-accessible storage medium as recited in claim 30, wherein the instructions are further executable to implement:

said file system submitting a query to said database to identify a class including one or more of said plurality of files, wherein each member of said class has one or more corresponding records of detected operations to access content that satisfy constraints specified in said query; and
said file system assigning a storage policy to each member of said class, wherein said storage policy is determined dependent upon said class.

32. (New) The computer-accessible storage medium as recited in claim 31, wherein said storage policy identifies a type of storage device for storing members of said class, wherein said type is determined dependent upon a characteristic of said class.

33. (New) The computer-accessible storage medium as recited in claim 30, wherein the instructions are further executable to implement:

in response to storing said corresponding record for said given respective operation, said file system storing an indication of said given respective operation in a history stream of said file system.
said file system scanning said history stream to determine whether any unscanned indications of said respective operations are stored therein; and
in response to determining that an unscanned indication of one or more particular ones of said respective operations is stored in said history stream, said file system retrieving said corresponding records of said one or more particular respective operations and storing said corresponding records of said one or more particular respective operations in a database.